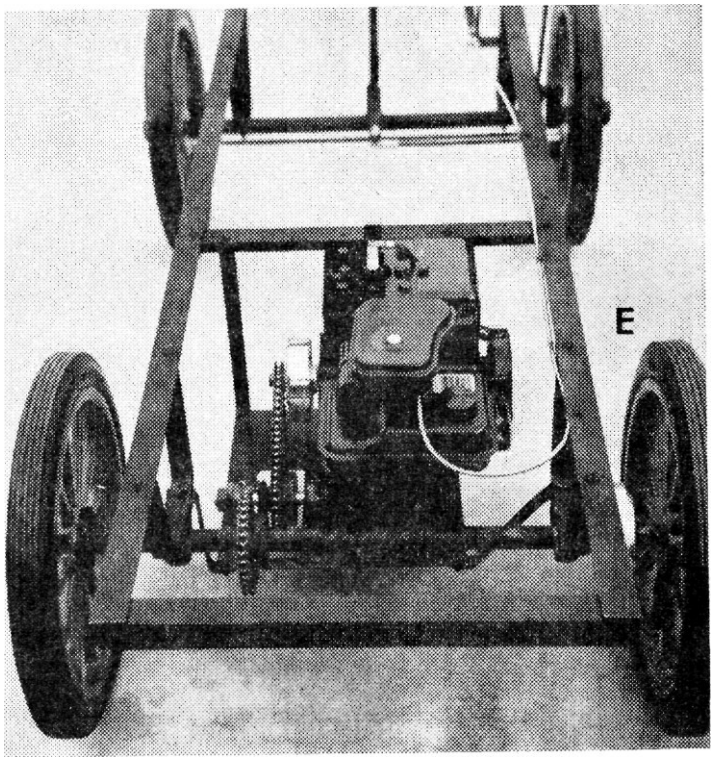
Be the first in your block to give your boy a truck! This original S&M design will enable the average craftsman to build this powered, half-size 1901 truck in a few weekends.

By George E. Jones



Build it to scale:

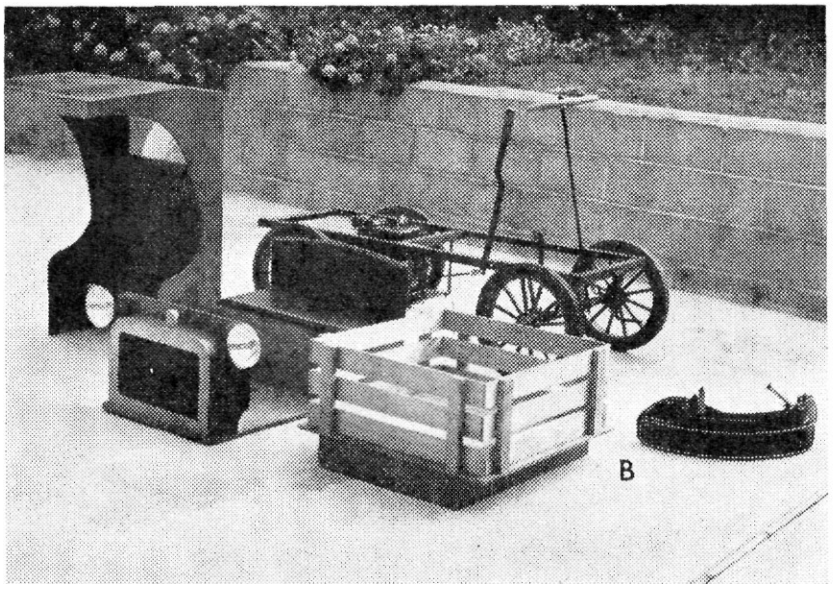
S & M's ANTIQUE TRUCK

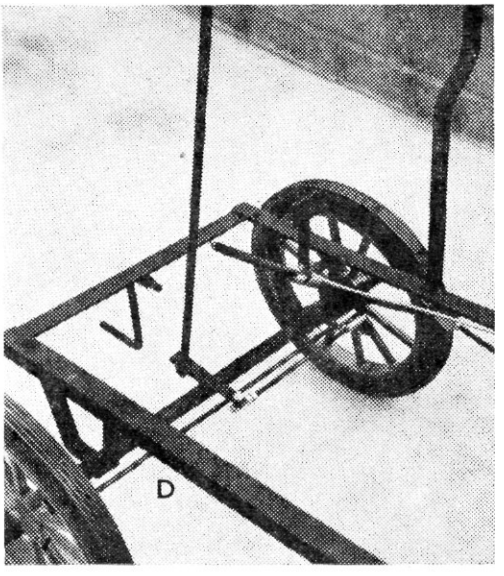
THE SCIENCE & MECHANICS half-size antique truck with its 2-hp, 4-cycle gasoline engine makes a really sensational toy for a youngster. It will carry Junior around the lot at a brisk 13 mph, yet will come to a safe and sure stop when he pulls back on the old-fashioned hand brake. And there's enough room for Sis to tuck into the seat beside him too.

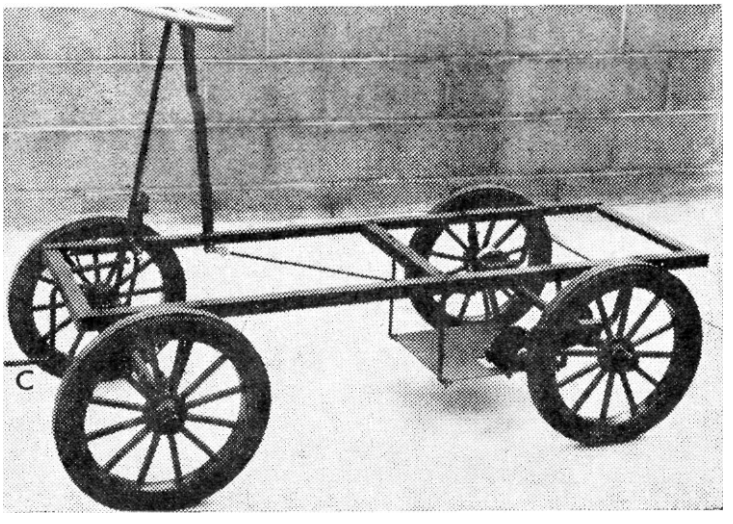
The frame is welded steel-angle stock; the body is plywood, Masonite and white pine. A small amount of machining is required to make some of the chassis parts. To give the truck a more professional appearance, the wheels, hub caps, steering wheel, pillow blocks, brake drum, ball joints and fenders can be purchased (see Materials List at end of article).

Frame. Construction begins with the frame (Fig. 1). While ordering the steel angle for the frame, have *all* the other steel cut that will be required for the truck.

The frame consists of two side rails of 1/8-inch steel angle measuring 1-1/4 x 1-1/4x 54 inches, and three cross members each 17-1/2 inches long. Use a framing square to lay the frame rails and end pieces square with each other, then clamp and weld. The over-all outside dimension of the frame will be 18x54 inches. *(Turn page)*







A. A boy's dream come true. Note old-fashioned hand brake.

B. Basic units: chassis, cab, radiator, seat, stake body, fenders.

C. Chassis with brake handle, engine mount and steering unit.

D. Close-up of ball-point steering, hand brake and accelerator.

E. View of engine in place with drive leading to left rear wheel.

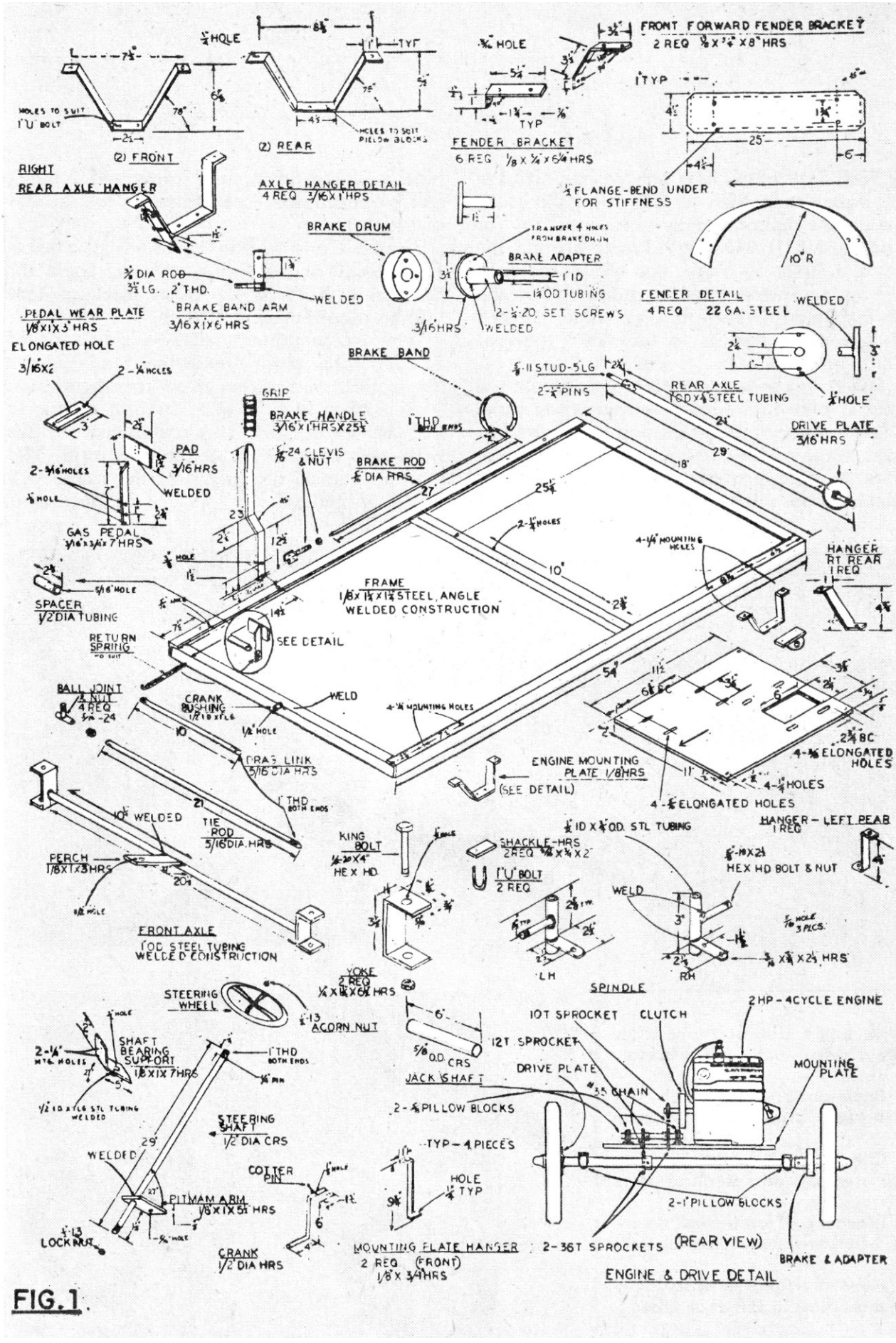
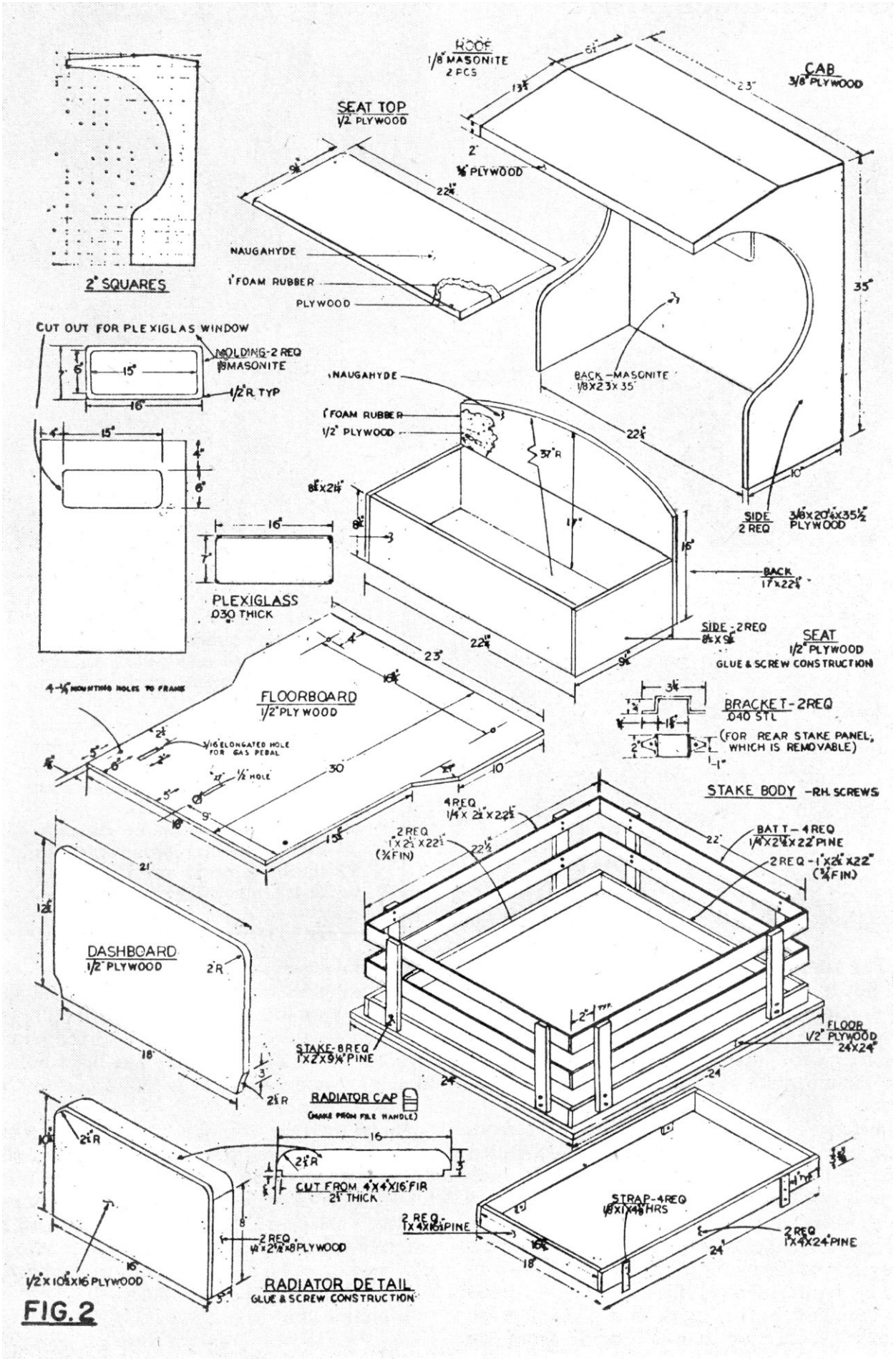
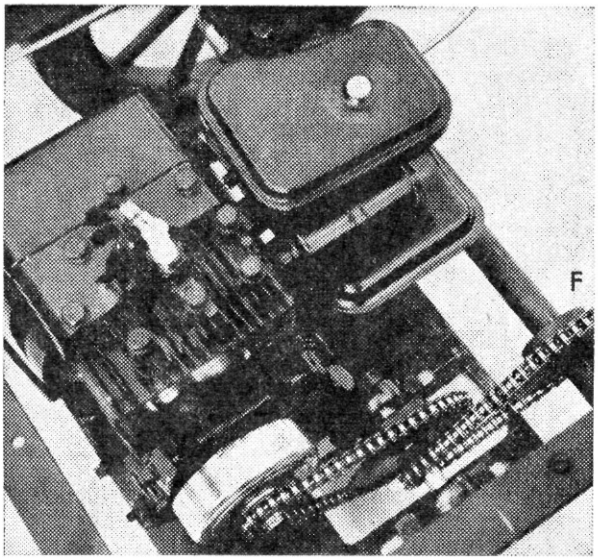
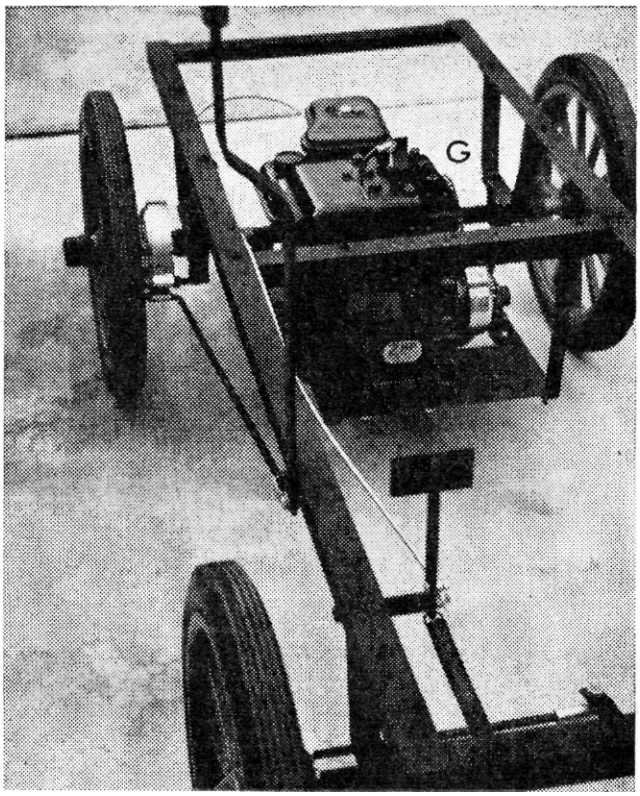

(2) FRONT
(2) REAR
RIGHT REAR AXLE HANGER
AXLE HANGER DETAIL 4 REQ 3/16X1"HRS
FENDER BRACKET 6 REQ 1/8 X 1" X 6¼" HRS
FRONT FORWARD FENDER BRACKET 2 REQ ⅛"X 3" X 8" HRS
¼" FLANGE-BEND UNDER FOR STIFFNESS
FENDER DETAIL 4 REQ 22 GA. STEEL
BRAKE DRUM
BRAKE ADAPTER
1" ID
1" OD TUBING
2-¼-20 SET SCREWS
WELDED
⅜ DIA ROD 3½" LG. 2" THD.
BRAKE BAND ARM 3/16 X 1" X 6" HRS
PEDAL WEAR PLATE ⅛"X1"X3" HRS
ELONGATED HOLE
BRAKE BAND
GRIP
BRAKE HANDLE 3/16"X1"HRS X 25½"
PAD 3/16" HRS
GAS PEDAL
BRAKE ROD ⅜" DIA HRS
FRAME 1⅛" X 1¼" X 1¼" STEEL ANGLE WELDED CONSTRUCTION
SEE DETAIL
SPACER ½" DIA TUBING
RETURN SPRING
BALL JOINT & NUT 4 REQ ⅜-24
CRANK BUSHING
DRAG LINK 5/16" DIA HRS
TIE ROD 5/16" DIA. HRS
PERCH ⅛"X1"X3" HRS
FRONT AXLE 1" OD STEEL TUBING WELDED CONSTRUCTION
REAR AXLE 1" OD X ¼" STEEL TUBING
DRIVE PLATE 3/16" HRS
HANGER RT REAR 1 REQ
HANGER – LEFT REAR 1 REQ
ENGINE MOUNTING PLATE ⅛" HRS (SEE DETAIL)
4-⅝" ELONGATED HOLES
4-1" HOLES
KING BOLT ⅜-20 X 4" HEX HD
SHACKLE-HRS 2 REQ ⅛" X ¾" X 2"
1" U" BOLT 2 REQ
⅜" ID X ½" OD. STL TUBING
⅜-16 X 2½ HEX HD BOLT & NUT
YOKE 2 REQ ¼" X 1½" X 6½" HRS
SPINDLE
STEERING WHEEL
½-13 ACORN NUT
SHAFT BEARING SUPPORT ⅛"X1"X7"HRS
½" I.D. X 1" LG STL TUBING WELDED
STEERING SHAFT ½" DIA CRS
PITMAN ARM ⅛"X1"X5½" HRS
½-13 LOCK NUT
CRANK ½" DIA HRS
COTTER PIN
5/8" O.D. CRS JACK SHAFT
2-⅝" PILLOW BLOCKS
TYP – 4 PIECES
MOUNTING PLATE HANGER 2 REQ (FRONT) ⅛" X 3½" HRS
2HP – 4 CYCLE ENGINE
10T SPROCKET
CLUTCH
12T SPROCKET
DRIVE PLATE
#35 CHAIN
MOUNTING PLATE
2-1" PILLOW BLOCKS
2-36T SPROCKETS
(REAR VIEW)
BRAKE & ADAPTER
ENGINE & DRIVE DETAIL

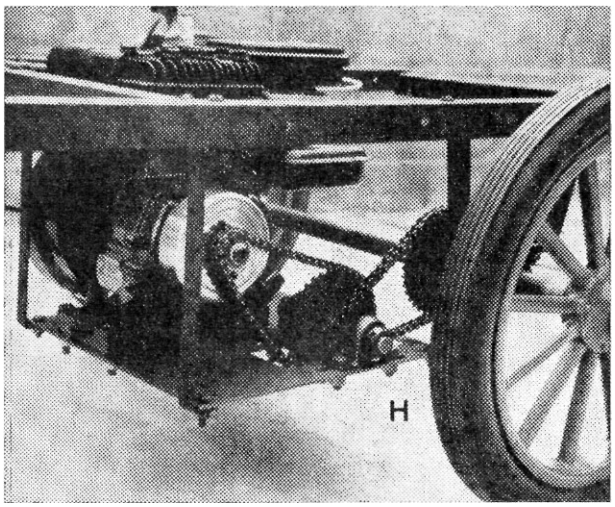
FIG. 1.


2" SQUARES
ROOF
1/8" MASONITE
2 PCS
CAB
3/8" PLYWOOD
SEAT TOP
1/2" PLYWOOD
1/8" PLYWOOD
NAUGAHYDE
1" FOAM RUBBER
PLYWOOD
CUT OUT FOR PLEXIGLAS WINDOW
MOLDING-2 REQ
1/8 MASONITE
1/2" R. TYP
BACK - MASONITE
1/8 X 23 X 35
NAUGAHYDE
1" FOAM RUBBER
1/2" PLYWOOD
SIDE
2 REQ
3/8 X 20 X 35 1/2
PLYWOOD
BACK
17 X 22 1/2
PLEXIGLASS
.030 THICK
SIDE - 2 REQ
SEAT
1/2" PLYWOOD
GLUE & SCREW CONSTRUCTION
4 - 1/4" MOUNTING HOLES TO FRAME
FLOORBOARD
1/2" PLYWOOD
5/16 ELONGATED HOLE FOR GAS PEDAL
1/2" HOLE
BRACKET - 2 REQ
.040 STL
(FOR REAR STAKE PANEL, WHICH IS REMOVABLE)
STAKE BODY - RH. SCREWS
4 REQ
1/4 X 2 1/2 X 22 1/2
2 REQ
1 X 2 1/2 X 22 1/2
(3/4 FIN)
BATT - 4 REQ
1/4 X 2 1/4 X 22" PINE
2 REQ - 1" X 2 1/4" X 22"
(3/4" FIN)
DASHBOARD
1/2" PLYWOOD
STAKE - 8 REQ
1 X 2 X 9 1/4 PINE
FLOOR
1/2" PLYWOOD
24 X 24
RADIATOR CAP
(SHAVE FROM FILE HANDLE)
CUT FROM 4" X 4" X 16" FIR
2 1/2" THICK
STRAP - 4 REQ
1/8 X 1 X 48 HRS
2 REQ
1 X 4 X 16 PINE
2 REQ
1 X 4 X 24" PINE
2 REQ
1/4 X 2 1/4 X 8 PLYWOOD
1/2" X 10 1/2" X 16 PLYWOOD
RADIATOR DETAIL
GLUE & SCREW CONSTRUCTION
FIG. 2

S&M's Antique Truck







F. Top view showing the clutch and chain arrangement, sprockets, jack shaft and pillow blocks. Engine is a 2-hp Briggs & Stratton.

G. Mercury strap brake and brake band in position on the right rear wheel. Adjustment is by clevis attached to handle and brake rod.

H. 10-tooth sprocket on clutch to 36-tooth sprocket on jack shaft; 12-toofh sprocket on jack shaft to 36-tooth sprocket on rear axle.

The four axle hangers (Fig. 1) are made of hot-rolled steel stock that can be bent cold in a vise. The rear hangers are shorter in height than the front hangers to compensate for the pillow blocks. Mount the hangers to the frame with 1/4-inch roundhead stove bolts.

Axles. The spindle yokes for the front axle are made of 1/4x1-1/4-inch hot-rolled steel bent to shape in a vise. Drill the1/2-inch king bolt holes in the yoke ends. The front axle is 1-inch-diameter steel tubing 20-1/2 inches long. Weld the yokes to the tubing so they are centered on the tube ends and parallel. Clamp and weld this assembly. Drill the 1/2 -inch hole in the perch, then place it in the center of the axle at a 27° angle from the horizontal plane and weld it.

The spindles are identical except that the right-hand spindle arm has two5/16-inchholes for mounting the drag link. Weld the wheel spindles (5/8 x 2-1/2-inch-long hex head bolts) to the spindle bodies at a 90° angle to the spindle arms.

Make the rear axle of a 24-inch-long piece of 1-inch-diameter steel tubing and pin the 5/8 -inch-diameter stub axles in the ends of the tubing with1/4-inch pins. The stub axles are simply 5/8-inch-11 hex-head bolts 5 inches long with their heads sawed off. They extend 2-1/2 inches outside the tubing to make an over-all axle length of 29 inches.

Machine the drive plate (Fig. 1) from a

{Continued on page 92)

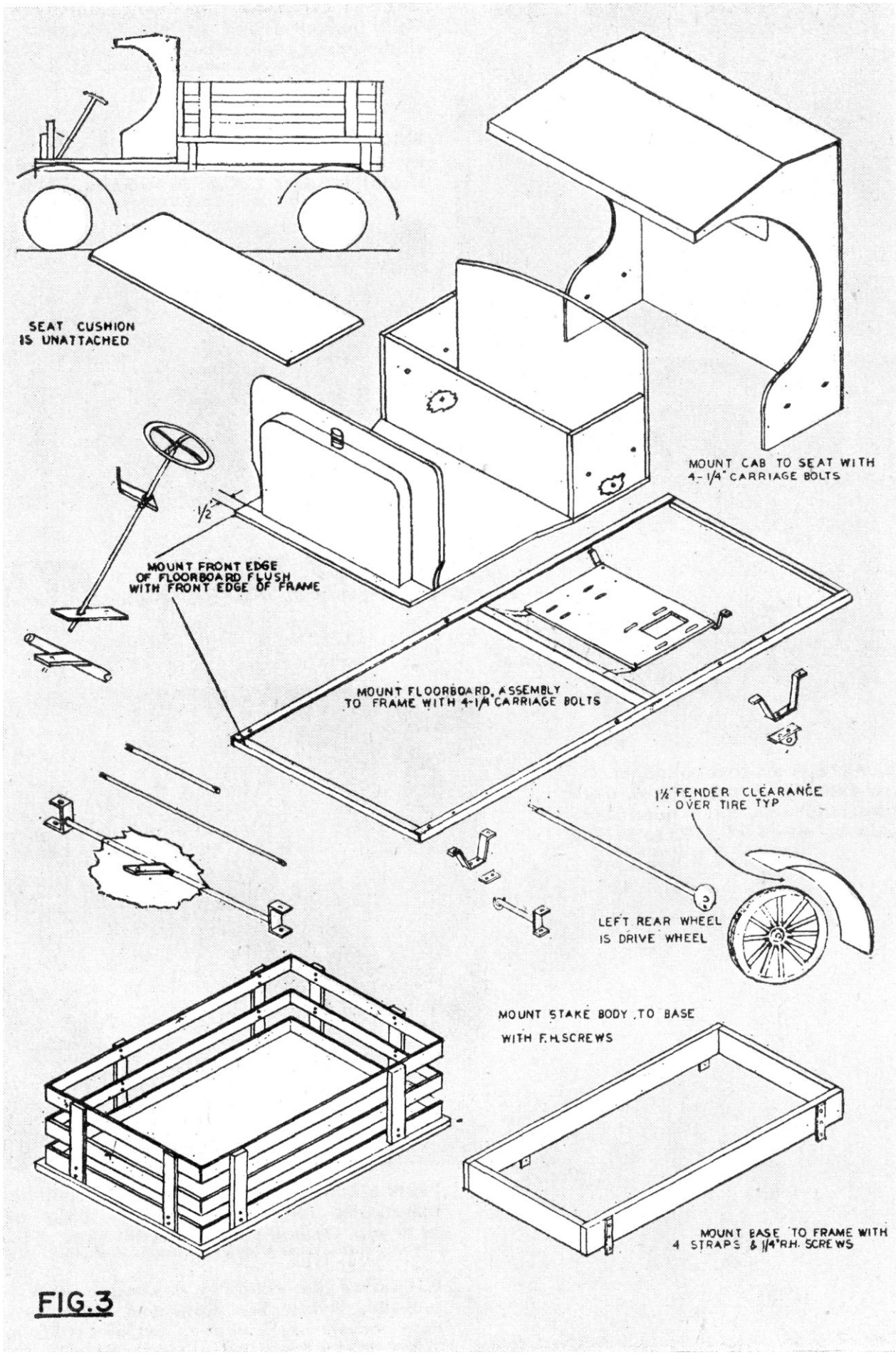
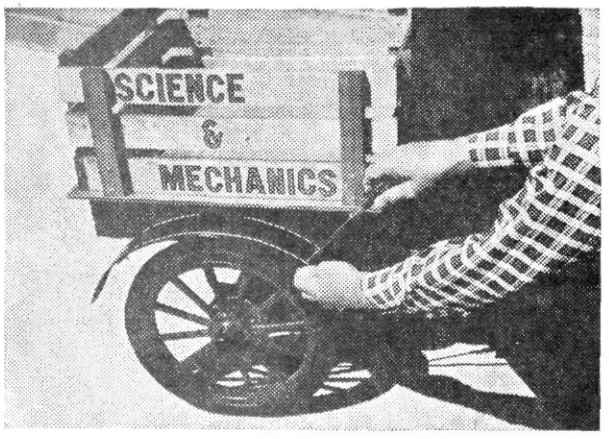

SEAT CUSHION
IS UNATTACHED
MOUNT CAB TO SEAT WITH
4-1/4" CARRIAGE BOLTS
1/2"
MOUNT FRONT EDGE
OF FLOORBOARD FLUSH
WITH FRONT EDGE OF FRAME
MOUNT FLOORBOARD ASSEMBLY
TO FRAME WITH 4-1/4 CARRIAGE BOLTS
1½" FENDER CLEARANCE
OVER TIRE TYP
LEFT REAR WHEEL
IS DRIVE WHEEL
MOUNT STAKE BODY TO BASE
WITH F.H. SCREWS
MOUNT BASE TO FRAME WITH
4 STRAPS & 1/4" R.H. SCREWS

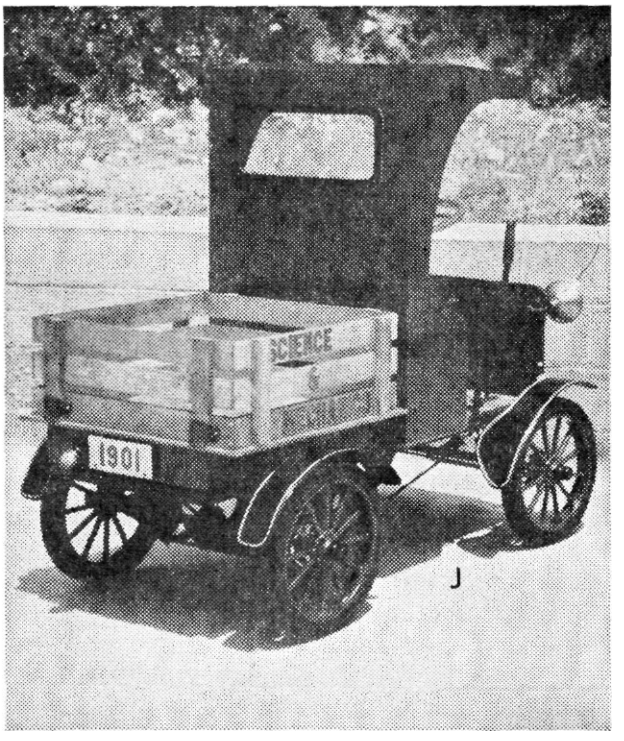
FIG.3

S&M's Antique Truck

(Continued from page 67)



I. Sheet metal or Fiberglass fenders should clear top of the tires by about 1-1/2 inches.



J. Rear view of the completed truck points up faithful reproduction of original design.

piece of 3/16-inch hot-rolled steel turned to a 3-inch diameter and with a 1-inch hole bored in the center which will provide a slip-fit for the rear axle. Drill the two 1/4-inch holes in the plate 180° apart, then weld the plate to the left side of the axle and flush with the end of the tubing. Weld inboard on the axle, because the outside face of the plate must bolt flush to the drive wheel.

Fabricate the brake adapter and drill the two 1/4-inch set-screw holes, then transfer the hole pattern in the brake drum to the brake-adapter plate and mount it to the plate with four 1/4-inch hex-head bolts.

Now proceed with the following sequence on the rear axle (Fig. 1): (1) slip a locking collar and then a 1-inch pillow block onto the axle and slide it toward the drive plate; (2) slip on the 36-tooth sprocket (1-inch bore); (3) slip on the other 1-inch pillow block and locking collar; and (4) slide the brake drum assembly onto the axle with the adapter tubing pointing toward the center of the axle.

Position the rear axle assembly so that the pillow blocks are in line with the rear axle hangers. Mount the pillow blocks to the hangers with 3/8-inch hex-head bolts and nuts, centering the axle for length. The brake drum and 36-tooth sprocket are positioned later.

Mount the front axle to its axle hangers with 1 -inch U-bolts and shackles. Center the axle for length with the yokes at 90° angles to the frame. With the two axles thus mounted, the wheelbase of the car should measure 38 inches.

Complete the front axle assembly by threading the tie rod and drag link ends with 1 inch of thread on the ends. Screw the ball joints to the ends. The spindle bodies are held in place in the yokes with 1/2 x 4-inch-long hex-head bolts (king bolts) and lock nuts. Attach the tie rod to the holes in the spindle arms, and the drag link to the remaining hole in the right-hand spindle.

Paint the frame before putting the wheels on the axles. Spread on a coat of metal primer, finishing with a coat of flat black enamel. Paint the wheels with bright red enamel.

When the paint has dried put on the front wheels and lock nuts, with the lock nuts backed off 1/4 turn from the snug position so the wheels revolve freely. Tap the hub caps into place. The front wheels should have about 1/16-inch toe-in when properly mounted.

The right rear wheel is the free wheel and is put on next. The left rear wheel is the drive wheel. Slip this wheel onto the axle, then transfer the screw-hole pattern from the drive plate to the wheel. Remove the wheel and drill and tap it for two 1/4-inch -20 tapped holes. Put the wheel back on and secure it to the drive plate with two 1/4-inch -20 hex-head bolts. Tighten the lock nut into place, then tap on the hub cap.

Brake assembly. Make the brake band arm (Fig. 1) and mount it to the right rear

axle hanger. Thread the ends of the brake rod, then put a 2-inch-long, 90° bend in one end. The brake handle is a piece of 3/16-inch hot-rolled steel bent to shape in a vise. Place the brake band (Fig. 1 & Photo G) over the outside diameter of the brake drum, slipping the top loop hole of the band over the brake arm stud, and secure it with a nut. Slip the 90° bent end of the brake rod through the bottom loop hole of the brake band and secure it with a nut, then attach the clevis to the other end of the brake rod. With the brake handle attached to the frame, position the brake drum and snug it up with bolt and nut to assure firm action. Tighten the two set screws in the brake adapter on the axle.

Engine mounting plate assembly. The engine mounting (Fig. 1 & Photo E) is made of 1/8-inch hot-rolled steel plate. Make the cutout for the jack-shaft sprockets (the elongated holes) and drill the four 1/4-inch corner hanger-mounting holes. Bend the four strap hangers in a vise. The two front hangers are both 9-3/4 inches long; the two rear hangers are 4-3/8 inches long. The rear hangers mount to the underside of the axle hangers in the forward hole of the pillow-block mounting holes. The two front hangers mount to the steel-angle frame cross member.

The jack shaft (Fig. 1) is a piece of 5/8-inch-diameter cold-rolled steel cut to a 6-inch length. Mount the 36-tooth sprocket (5/8-inch bore) and the 12-tooth sprocket (Photo F) on the jack shaft, then slip the two 5/8-inch pillow blocks on the ends of the shaft with the locking collars outward. Mount this assembly to the engine plate in the elongated holes, snugging up the bolts.

When you buy the engine, also get a throttle-control cable (Photo G) and four conduit clips for securing the cable to the frame. Lead the cable to the accelerator foot-pedal. Mount the centrifugal clutch onto the engine shaft and position the engine on the mounting plate, but don't tighten the bolts and nuts yet. Line up and tighten the sprockets (Photo H) so that the 36-tooth jack-shaft sprocket is in line with the clutch sprocket, and the smaller sprocket on the jack shaft lines up with the axle sprocket. Fit the chains so there is about 1/2 inch of slack halfway between the sprockets. Then tighten all mounting bolts in the engine holes and pillow-block holes.

Steering unit. The steering shaft (Photo C) is 1/2-inch-diameter cold-rolled steel with 1 inch of thread on both ends. Drill the 1/4-inch pin hole near the top of the shaft as indicated in Fig. 1. Later a pin is inserted here which prevents the wheel spinning on the shaft. Drill the 1/2-inch hole and the 5/16-inch hole in the pitman arm, then weld the pitman arm to the steering shaft as shown. Mount the steering shaft through the 1/2-inch hole in the axle perch and secure it with a lock nut. Attach the drag link (Photo C) to the 5/16-inch hole in the pitman arm.

Make the steering-shaft support from a piece of 1/8-inch hot-rolled steel and weld the bushing to the underside in line with the 1/2-inch hole drilled in the support to receive the steering shaft.

The accelerator (Photo G) is of welded construction, with holes drilled to accommodate the return spring, the swivel screw for the control cable and the hole for the spacer bushing which mounts to the frame.

The crank (Photo C) is for appearance only. It is made of 1/2-inch diameter hot-rolled steel heated and bent to shape. Drill a 1/2-inch hole in the center of the front cross member of the frame and weld a 1/2-inch I.D. bushing behind the hole to support the crank end. Use a cotter pin to hold the crank in the bushing.

Bend the eight fender brackets of 1/8 x 3/4-inch hot-rolled steel in a vise. You can purchase a set of fiberglass fenders or make the fenders yourself of 22-gage sheet metal. If you make your own, have them sheared to the exact dimensions at the tin shop where you buy the metal. The tinsmith will also run the metal through his slip-roll sheet-metal former to produce the desired 10-inch radius. Note that the fenders all have a 1/2-inch edge flange bent under for rigidity.

Paint the fenders with a primer coat, then with glossy black enamel. You can stripe them with a striping tool or by using masking tape (use a fine brush). Mount the fender brackets (Photo I) to the frame so there will be approximately *Wi* inch clearance between the fenders and the top of the tires.

Body. The floorboard is cut from *Vi*-inch plywood. Remember to mark and cut the elongated hole for the foot pedal, and drill the ^-inch clearance hole for the steering shaft. Give the floorboard a coat of shellac, followed by a coat of varnish. v

Make the pedal wear plate (Fig. 1) of hot-rolled steel. After elongating the %0-inch hole in it, mount it over the elongated hole in the floorboard.

The radiator (Fig. 2) is made of wood, the

(Continued on next page)

S&M's Antique Truck

(Continued from page 93)

top curved portion being cut from a piece of 4x4-inch lumber; the front and sides are plywood. It is assembled with Weldwood glue and flathead screws. The dashboard is cut from 1/2-irich plywood and screwed and glued to the radiator assembly. Paint the radiator assembly with bright red enamel, the radiator itself flat black trimmed with brass paint.

The seat is made of plywood and assembled with Weldwood glue and flathead screws. Upholster the backrest and seat cushion (Fig. 2) with 1-inch foam rubber and Naugahyde covering. Give the seat a primer coat, then one coat of bright red enamel. The seat cushion is left unattached, but is fitted snugly in place later.

Cab. Clamp and bandsaw the stock for the two sides of the cab at the same time, after marking the contours of the cut as shown in Fig. 2. Cut the roof sections and back panel from 1/8-inch Masonite. Cut the back window opening for the Plexiglas and the two strips of molding that hold the Plexiglas in place. Assemble the cab with Weldwood glue and3/4-inch brads spaced at 2-inch intervals. Paint the roof of the cab glossy black and the sides bright red enamel. Then place the cab around the seat and fasten it to the sides of the seat with four1/4-inch carriage bolts.

Mount the radiator and cab assembly to the floorboard; the radiator unit (Fig. 2) is

MATERIALS LIST—S&M'S ANTIQUE TRUCK

Amt. Req.	Size & Description	Use
2 pcs.	1/8x1 1/4x1 1/4x54" steel angle	frame side rails
3 pcs.	1/8x1 1/4x1 1/4x17 3/4" steel angle	frame cross members
1 pc.	3/16x1x68 1/2" hot-rolled steel (HRS)	4 axle hangers
1 pc.	1/4x1 1/4x13" HRS	2 yokes
1 pc.	1/2" I.D. x 3/4" O.D. x 6" steel tubing	2 spindle bodies
1 pc.	3/16x3/4x5" HRS	2 spindle arms
1 pc.	1/8x1x3" HRS	perch (axle)
1 pc.	5/16" dia. x 60" HRS rod	tie rod, drag link, brake rod
1 pc.	1" dia. x 20 1/2" steel tubing	front axle
1 pc.	1/2" dia. x 29" cold-rolled steel (CRS)	steering shaft
1 pc.	1/8x1x5 1/2" HRS	pitman arm (steer. shaft)
1 pc.	1/8x1x7" HRS	steering shaft support
1 pc.	1/2" I.D. x 3/4" O.D. x 1" steel tubing	steer. shaft sup. bushing
1 pc.	3/16x1x7" HRS	brake pedal
1 pc.	3/16x1 1/2x2 1/2" HRS	brake-pedal pad
1 pc.	5/16" I.D. x 1/2" O.D. steel tubing, 2 5/8" long	pedal spacer
1 pc.	1/8x3/4x37" HRS	4 engine-mounting plate hangers
4 pcs.	5 1/2x26", 22-ga. sheet metal	4 fenders
1 pc.	1/8x3/4x54" HRS	8 fender brackets
1 pc.	1" O.D. x 5/8" I.D. steel tubing, 24" long	rear axle
1 pc.	3/16x3" dia. HRS	drive plate (rear axle)
1 pc.	3/16x3 1/2" dia. HRS	brake adapter
1 pc.	1" I.D. x 1 1/4" O.D. x 1 1/2" steel tubing	brake adapter
1 pc.	5/8" O.D. CRS	jack shaft
1 pc.	3/16x1x6" HRS	brake band arm
1 pc.	3/8" dia. x 2 1/2" long HRS	brake band arm
1 pc.	3/16x1x25 1/4" HRS	brake handle
1 pc.	1/2" dia. x 12" long HRS	crank
1 pc.	1/2" I.D. x 3/4" O.D. x 1" long HRS	crank bushing
1 pc.	1/8x1x3" HRS	pedal wear plate
1 pc.	.040 x 2 x 10" long sheet metal	2 stake body brackets
1 pc.	1/8x1x20" HRS	4 body-mounting straps

STEEL PARTS

2	1" U-bolts	front axle shackles
1	bicycle handle grip	brake handle grip
2	1/2"-20 x 4" hex-head bolts & nuts	king bolts for yokes
2	5/8"-11 x 5" hex-head bolts	rear axle studs
1	return spring	accelerator foot pedal
1	5/16"-24 clevis & nut	brake-rod assembly
1	brake assembly	brake
2	1" pillow blocks	rear axle
2	5/8" pillow blocks	jack shaft
1	centrifugal clutch	engine
1	36-tooth sprocket (1" bore)	rear axle
1	36-tooth sprocket (5/8" bore)	jack shaft
1	12-tooth sprocket (5/8" bore)	jack shaft
4	5/16"-24 ball joints	steering assembly

ENGINE

2-hp, 4-cycle Briggs & Stratton (or equivalent)

BODY

Amt. Req.	Size & Description	Use
1	1/2x23x30" plywood	floorboard
1	1/2x12 1/2x21" plywood	dashboard
1	1/2x10 1/2x16" plywood	radiator
1	4x4x16" pine	radiator top
2	1/2x2 1/2x8" plywood	radiator sides
1	1/2x8 1/2x21 1/4" plywood	seat front panel
2	1/2x8 1/2x9 1/2" plywood	seat sides
1	1/2x17x22 1/4" plywood	seat back
1	1/2x9 1/2x22 1/4" plywood	seat top
2	3/8x20 1/4x35" plywood	cab sides
1	1/8x23x35" Masonite	cab back panel
1	1/8x13 3/4x23" Masonite	roof section
1	1/8x6 1/2x23" Masonite	roof section
1	3/8x2x23" plywood	roof front strip
2	1/8x7x16" Masonite	plexiglas molding
1	.030x7x16" Plexiglas	cab window
1	1/2x24x34" plywood	stake body bed
8	1x2x9 1/4" pine	stakes
2	1x22 1/2x2 1/2" pine	stake body
2	1x22x2 1/2" pine	stake body
4	1/4x2 1/2x22" pine	stake body
4	1/4x2 1/2x22 1/2" pine	stake body
2	1x4x16 1/2" pine	base (stake body)
2	1x4x24" pine	base (stake body)
1	1"x18 1/2x22 foam rubber	upholstery
1	24x30" Naugahyde covering	upholstery
1	5' Roll, 1/2" wide edging	upholstery trim

Misc. nuts & bolts to suit, 3/4" brads, upholstery tacks, etc.

The following parts are available from George E. Jones Co., P.O. Box 1243, Magnolia Park Station, Burbank, Calif., at prices shown, plus shipping costs.

ITEM		PRICE
ball joint—5/16"-24	(Set of 4)	$ 2.40
steering wheel—aluminum cast		4.50
wheels—aluminum cast—16x1.75 semipneumatic tire	(Set of 4)	41.50
hub caps	(Set of 4)	2.20
fenders—fiberglass	(Set of 4)	9.95
brake—mercury strap		4.50
1" SKF pillow blocks	(Per Pr.)	7.20
5/8" SKF pillow blocks	(Per Pr.)	6.00
license plates—"1901"	(Per Pr.)	1.95
36-tooth sprocket—1" bore		7.50
36-tooth sprocket—5/8" bore		7.50
12-tooth sprocket—5/8" bore		1.60
chain—3 ft. req.	($1.25 ft.)	3.75
connecting links—2 req.		.48
2" decals—letters & numbers (state letters & numbers wanted)	Ea.	.10
mercury clutch		13.95

mounted1/2*i*inch behind the front edge of the floorboard. The cab mounts flush with the rear edge of the floorboard. Use flathead wood screws turned in from the underside of the floorboard.

Now pick up the whole floorboard assembly and fit it onto the frame, guiding the steering shaft through the clearance hole in the floorboard. The body is held to the frame with four 1/4-inch carriage bolts. Slide the steering shaft support over the steering shaft and attach it to the dashboard with two round-head screws. Insert the 1/4-inch pin in the steering shaft, then mount the steering wheel and cap it with an acorn nut.

Mount the accelerator foot pedal through the elongated hole in the floorboard and attach it to the frame with spacer bushing, bolt and nut. Attach the throttle control cable (Photo D) to the pedal, put on the pedal-return spring and adjust the cable for proper return action to the carburetor.

Stake body. The stake body (Figs. 2 & 3) is made of 1/4 x 2-1/2-inch finished white pine. The rear stake section may be a permanent or removable installation. For a removable section make the two brackets shown in Fig. 2. The base for the stake body is of 1 x 4-inch white pine mounted to the bed of the stake body with flathead screws turned in from the top. Leave the stake sides their natural color, using a shellac sealer and a varnish finish. Mount the complete assembly to the frame by the four side straps secured to the base and frame with 1/4-inch round-head screws.

The headlights and taillights are optional. Add a radiator cap cut from the end of a file handle.

Go over the truck thoroughly now, making sure all nuts and bolts are tight. Then fill the tank with gas and the crankcase with oil and start the engine (which is readily accessible from beneath the stake body). Adjust it for idling speed so that it will de-clutch automatically when you release the foot pedal.

Hop in, and away you go. •

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